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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: : Before the Examiner:
Arning et al. : Al Hashemi, Sana A.
: :
Serial No.: 10/044,782 : Group Art Unit: 2164
: :
Filing Date: January 11, 2002 : :
Title: METHOD, COMPUTER : IBM Corporation
PROGRAM AND DATA : Dept. T81/Bldg. 503
PROCESSING SYSTEM FOR : P.O. Box 12195
DATA CLUSTERING : 3039 Cornwallis Road
: Research Triangle Park, NC 27709

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Final Office Action having a mailing date of September 22, 2006, Applicants respectfully request the formal review of the legal and factual basis of the rejections in this case prior to the filing of an Appeal Brief. A Notice of Appeal is filed concurrently herewith.

REMARKS/ARGUMENTS

Claims 1-13 are pending in the Application. Claims 1-13 remain rejected under 35 U.S.C. §101. Claims 1-13 remain rejected under 35 U.S.C. §112, second paragraph. Applicants respectfully traverse these rejections for at least the reasons stated below.

I. Claims 1-13 are improperly rejected under 35 U.S.C. §101.

The Examiner rejects claims 1-13 under 35 U.S.C. §101 because independent claims 1, 10, 11 and 13 are allegedly merely claiming nonfunctional descriptive material and hence do not produce a useful, tangible result. Office Action (9/22/2006), page 4. Applicants respectfully traverse.

The Congressional intent, is that any new and useful process, machine, manufacture or composition of matter under the sun that is made by man is the proper subject matter of a patent. M.P.E.P. §2106. The subject matter courts have found to be outside the four statutory categories is limited to subject matter that is not a practical application or use of an idea, a law of nature or a natural phenomenon. *See, e.g., Rubber-Tip Pencil Co. v. Howard*, 87 U.S. (20 Wall.) 498, 507 (1874); M.P.E.P. §2106.

Applicants respectfully contend that the claimed inventions in claims 1-13 satisfy the test for statutory subject matter recited in *In re Alappat*, and repeated in *State Street Bank & Trust Co. v. Signature Financial Group*, and *AT&T Corp. v. Excel Communications, Inc. In re Alappat*, 33 F.3d 1526, 31 U.S.P.Q.2d 1545 (Fed. Cir. 1994); *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 47 U.S.P.Q.2d 1596 (Fed. Cir. 1998); *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1526, 50 U.S.P.Q.2d 1547 (Fed. Cir. 1999). The claimed inventions produce a useful, concrete and tangible result in, *inter alia*, data clustering and quality determination and in determining the quality of a result of a clustering data processing operation.

In *State Street Bank & Trust v. Signature Financial Group*, a useful and concrete and tangible result not expressed in an explicit limitation in the claim at

issue was relied upon in holding that the claim was directed to statutory subject matter. *See, State Street Bank*, 149 F.3d at 1373, 47 U.S.P.Q.2d at 1601 (holding that the transformation of data by the claimed data processing system produced a useful, concrete and tangible result, namely a final share price momentarily fixed for recording and reporting purposes). The claimed invention recited no limitation directed to either a final share price or means for momentarily fixing the final share price for recording and reporting purposes. *See, State Street Bank*, 149 F.3d at 1371, 47 U.S.P.Q.2d at 1599. Indeed, the relied upon useful, concrete and tangible result in *State Street Bank*, namely a final share price momentarily fixed, is not explicitly recited in the *State Street Bank* patent, but is effectively a distillation of the Summary of the Invention. *See, R. Todd Boes*, U.S. Patent No. 5,193,056, col. 4, lines 36-61. Thus, it is beyond peradventure that when judging the claimed subject matter as a whole to determine patentability under 35 U.S.C. § 101, the claims must be construed in the light of the specification.

In short, the question whether a claim encompasses statutory subject matter focuses on the essential characteristics of the subject matter, in particular its utility. *State Street Bank*, 149 F.3d at 1375, 47 U.S.P.Q.2d at 1602.

The Examiner contends that the cited claims do not produce a useful, tangible result. However, claims 1-13, construed in light of the specification, clearly do produce a useful, tangible result. Claims 1-9 are directed to a method, which is not outside the four statutory categories, for determining the quality of a result of a clustering data processing operation, the result comprising a set of clusters, a cluster having a set of buckets for each variable. Claims 10-12 are directed to a method, which is not outside the four statutory categories, for data clustering and quality determination. Claim 13 is directed to a computer program product stored on a computer usable medium, which is not outside the four statutory categories, for determining the quality of a result of a clustering data processing operation, the result comprising a set of clusters, a cluster having a set of buckets for each variable.

As stated above, the inquiry under 35 U.S.C. §101 is whether there is a practical application, or result. *State Street Bank*, 149 F.3d at 1373, 47 U.S.P.Q.2d at

1601. As discussed above, claims 1-13 are directed to a method and computer program product for data clustering and quality determination. Hence, the subject matter of claims 1-13 has a practical application within the four statutory categories and is not an idea, a law of nature or a natural phenomenon.

Thus, Applicants respectfully contend that claims 1-13 constitute statutory subject matter. Applicants respectfully assert that the rejections of claims 1-13 under 35 U.S.C. §101 are in error.

II. Claims 1-13 are improperly rejected under 35 U.S.C. §112, second paragraph.

The Examiner has rejected claims 1-13 under 35 U.S.C. §112, second paragraph, for allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Office Action (9/22/2006), page 5. In particular, the Examiner asserts that the step of "determining a quality index based on the comparison," as recited in claim 1, and similarly in claims 10, 11 and 13, is unclear. *Id.* Applicants respectfully traverse.

A rejection based on Applicants failure to claim the subject matter which Applicants regard as the invention is appropriate only where Applicants have stated, somewhere other than in the application as filed, that the invention is something different from what is defined by the claims. *In re Moore*, 439 F.2d 1232, 169 U.S.P.Q. 236 (C.C.P.A. 1971); M.P.E.P. §2172. The Examiner has not provided any evidence that the invention is something different from what is defined by claims 1, 10, 11 and 13. Accordingly, Applicants respectfully assert that claims 1-13 are allowable under 35 U.S.C. §112, second paragraph.

Further, the Examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. §112, second paragraph, should be whether the claim meets the threshold requirement of clarity and precision, not whether more suitable language or modes of expression are available. M.P.E.P. §2173.02. Definiteness of claim language must be analyzed, not in a vacuum, but in light of the content of the particular application disclosure; the teachings of the prior art; and the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made. M.P.E.P.

§2173.02. In reviewing a claim for compliance with 35 U.S.C. §112, second paragraph, the Examiner must consider the claim as a whole to determine whether the claim apprises one of ordinary skill in the art of its scope and, therefore, serves the notice function required by 35 U.S.C. §112, second paragraph, by providing clear warning to others as to what constitutes infringement of the patent. M.P.E.P. §2173.02. The scope of claims 1, 10, 11 and 13, and in particular the limitation "determining a quality index based on the comparison," when analyzed in light of the Specification, can be determined by one of ordinary skill in the art and therefore serves the notice function required by 35 U.S.C. §112, second paragraph.¹ Consequently, Applicants respectfully assert that claims 1-13 are allowable under 35 U.S.C. §112, second paragraph.

III. Conclusion.

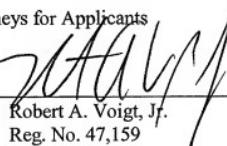
Applicants again submit that the rejections of claims 1-13 under 35 U.S.C. §§101 and 112 are improper. Applicants respectfully request that this case be reopened and that the rejections be withdrawn and a timely Notice of Allowance be issued.

Respectfully submitted,

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¹ Applicants encourage the conferees to review Applicants' argument beginning at the bottom of page 7 and continuing at the top of page 8 of Applicants' 1.111 Reply submitted on August 10, 2006.